

REMARKS

Applicants thank the Examiner for the thorough consideration given the presently pending claims. Claims 22 – 55 are pending in the present application. Claims 22 – 41 are withdrawn due to a restriction requirement. Claims 42 – 55 are new. Claims 19 – 21 are cancelled by this response. Claims 42 and 43 are independent.

Specification Objections

The specification is objected to as having poor syntax and grammatical form. Applicants hereby submit a substitute specification that has been stylistically and grammatically corrected. No new subject matter is added in this substitute specification.

Claim Rejections – 35 U.S.C. §112

Claim 19 stands rejected under 35 U.S.C. §112. This claim is cancelled, rendering this rejection moot. Applicants nonetheless note that, as defined in the specification, carbonization refers to a high-temperature process meant to improve the crystallinity of carbon fibers and fiber fragments contained in the fine carbon fiber powder.

Claim Rejections – 35 U.S.C. §102 and 35 U.S.C. §103

Claims 19-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,409,775 to Harada (“Harada”). Claims 19-21 also stand rejected under 35 U.S.C. §103(a) as being obvious over Harada, and alternatively as being unpatentable over Harada in view of U.S. Patent 3,356,525 to Gutzeit (“Gutzeit”). Claims 19-21 are cancelled, rendering these rejections moot. Applicants nonetheless note that Harada does not teach or suggest a two-step carbonization / graphitization process and furthermore that Gutzeit’s teaching of using carbon fibers “which have previously been subjected to controlled sequential firing operations to remove volatiles” (emphasis added) is directly contrary to the integrated, two-step heat treatment process

claimed herein. Instead of requiring previously treated carbon fibers, the present invention allows for heat treatment of as-grown carbon fiber powder.

Applicants further respectfully note that Harada does not teach or suggest the pressure fluctuation aspect of independent claims 42 and 43, and also does not teach or discuss a bulk density of vapor-grown carbon fibers.

Conclusion

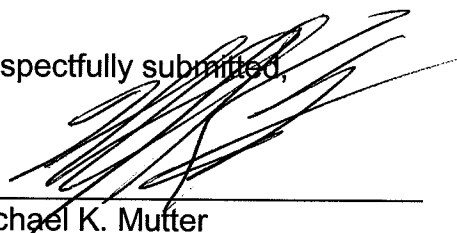
Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Charles Gorenstein (Reg. No. 29,271) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 
Michael K. Mutter
Registration No.: 29,680
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Rd
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant